

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-003233**Date Inspected:** 13-Jul-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 1400**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 2300**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai China

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|------------------------------------|---|-----------|------------|----------------------------------|------------|---------------|
| CWI Name: | Chen Chih-Ming/Zhao Chen Sun/Huang Yuesen/Pang/Chen X | | | Yes | No | |
| Inspected CWI report: | Yes | No | N/A | Rod Oven in Use: | Yes | No N/A |
| Electrode to specification: | Yes | No | N/A | Weld Procedures Followed: | Yes | No N/A |
| Qualified Welders: | Yes | No | N/A | Verified Joint Fit-up: | Yes | No N/A |
| Approved Drawings: | Yes | No | N/A | Approved WPS: | Yes | No N/A |
| | | | | Delayed / Cancelled: | Yes | No N/A |

Bridge No: 34-0006**Component:** OBG side, bottom, deck panels, floor beams a**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance Inspector (QA) Steve Hall was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island, in Shanghai, China. QA observed and/or found the following:

OBG new assembly bay 2

QA observed ZPMC qualified welding personnel perform FCAW 3G welding on floor beam joint#SSD19-PP024-135 and 131 OBG section 4AE following the guide lines of WPS# WPS-B-T-2233-B-U2-F. QC monitored the welding process continuously throughout the evening. The welder ID's and welding parameters as measured with Quality Controls calibrated instruments appeared to be in conformance with the posted WPS's and were as follows:

Volts: 25 – 25.5 Amps: 205 - 208 Travel speed: 107 - 118mm/min

Welder ID weld 135: 067079

Welder ID weld 131: 044795

QA observed ZPMC qualified welding personnel perform SAW on side panel joint#SEG-027B-001 SP-121A to SP-094A following the guide lines of WPS# WPS-B-T-2221-B-L2c-S-1. QC monitored the welding process continuously throughout the evening. The welder ID and welding parameters as measured with Quality Controls calibrated instruments appeared to be in conformance with the posted WPS's and were as follows:

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Volts: 30 Amps: 540 Travel speed: 456mm/min
Welder ID: 045265

Other general observations include ZPMC personnel fitting and welding OBG east fixture, OBG temporary support columns, grinding and weld bevel prep on various OBG components.

OBG bay 1

QA observed ZPMC personnel fitting u-rib stiffeners to DP-306-001. QA also noted that deck panels DP-198-001 on gantry 1 was welded completely and DP-332-002 on gantry 1 had GMAW complete and SAW in process.

OBG bay 2

QA noted that there was no Caltrans work being performed in this bay on this day.

OBG bay 3

QA observed ZPMC qualified welding personnel perform FCAW on bottom panel joint# BP-302-001-017 following the guide lines of WPS# WPS-B-T-2231-B-U2-F. Welder ID: 053742

QA observed ZPMC qualified welding personnel perform SAW on side panel joint# SP-645-001-001 following the guide lines of WPS# WPS-B-T-2221-B-L2c-S-1. Welder ID: 046830

QA observed ZPMC personnel preparing parts for fit up and welding; (cutting parts, drilling and weld bevel prep).

QA observed ZPMC personnel fitting stiffeners to side panels SP-641 and SP-186.

OBG bay 4

QA was notified by ZPMC QA identified as Mr. Lei Tao of a cracked tack on tower diaphragm weld# NSD1-SA322A/B-8 (9). QA observed ZPMC personnel excavate the broke tack by grinding and ZPMC QC MT'ed the excavated area. MT appeared to comply with AWS D1.5 2002 and the contract documents.(see digital photos below)

QA observed ZPMC qualified welding personnel perform FCAW 3G welding on the following tower diaphragm weld joints: SSD1-SA261 welds 8 & 9 and WSD1-SA268 weld 4 following the guide lines of WPS-B-T-2233-B-U3-F.

QA observed ZPMC personnel flame straighten side panel identified as SP-396.

QA observed ZPMC personnel SAW temporary columns and preparing parts for fit up and welding; (cutting parts and weld bevel prep).

OBG bay 7

QA observed ZPMC personnel fit and SMAW tack welding stiffeners to several floor beam web plates.

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Other general observations include ZPMC personnel grinding and weld bevel prep on various OBG components.

OBG bay 8

No welding operations were observed in this bay today.

Other general observations include ZPMC personnel grinding and weld bevel prep on various OBG and tower components.



Summary of Conversations:

Only general conversations were held between QA and QC concerning this project.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Patrick Lowry (858)-344-2712, who represents the Office of Structural Materials for your project.

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| Inspected By: | Hall,Steven | Quality Assurance Inspector |
| Reviewed By: | Cuellar,Robert | QA Reviewer |
